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# SOME RARE AND FAST DISAPPEARING PLANTS DISCOVERED IN TRIVANDRUM DISTRICT, KERALA, INDIA

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## ABSTRACT

Notes on seven endemic plant taxa of India, observed rare and fast disappearing, are given on the basis of collections made in Trivandrum district, Kerala from 1977 onwards.

Excepting some sporadic collections by foresters like Bourdillon, Rama Rao, Vencoba Rao, and others, no intensive and extensive botanical survey in Trivandum district has been done in the past. Reference to some plants of the district can be found in the works of Bourdillon (1908) and Rama Rao (1914). Lawson (1893) gave a report on his visits to Ponmudi, Merchiston and Trivandrum. Abraham (1962) gave a very general account of the vegetation of the district. Thomas (1962) studied the mangrove vegetation of Veli with special reference to ecological factors. T. A. Rao and Sastry (1972, 1974a, 1974b) in their account of coastal floristics dealt with some ecological aspects of Veli.

Contributions of Cook and Gut (1971) and Gaudet (1974) are concerned with the problem of *Salvinia mollesta* Mitchell. Nair and Ghosh (1974, 1976, 1977a, 1977b) made some observations of the Ferns of the area. Joseph and Chandrasekharan (1973, 1974, 1978), Nayar (1967, 1969), Maheshwari (1964), Raizada and Chatterji (1963), Ravi (1970) and Vasudevan Nair (1966-67) are some of the recent works on the district.

Most of the old collections of Bourdillon and others are meagerly represented in the Herbarium at Coimbatore (MH), University College Herbarium, Trivandrum (UCT)* and Central National Herbarium, Howrah (CAL). Even today, many species described earlier from this district are known only by their type collections. This is significant when we are concerned with the conservation of rare and threatened plants.

Owing to the large scale clearing of the thick forest areas, once endowed with high diversity of species, for habitation, cultivation of crop plants, monoculture and river valley projects many of the interesting and indigenous plants of the district have either disappeared or are to be relocated. In the cleared areas a large number of aliens are getting established.

It is gratifying to note that, of late, there is a growing awareness to protect the indigenous flora, and Henry, Vivekananthan and Nair (1979) have published a list of rare and threatened flowering plants of South India in which several plants of this district find a place.

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*Abbreviation ours since not included in *Index Herbarum* (1964).

In the course of intensive exploration tours undertaken since 1977, every attempt was made to relocate the rare and endangered plants and notes on seven such vascular taxa are presented in this paper. They are arranged alphabetically. The specimen cited are from MH, unless otherwise indicated.

**Actinodaphne campanulata** Hook. f. var. obtusa Gamble, Fl. Pres. Madras 7: 1230. 1925. [Lauraceae]

Trees up to 9 m high. Leaves 4.5-5.5 × 1.5 cm, elliptic-oblong, glaucous beneath, obtuse at apex, acute at base. Flowers whitish, in short peduncled axillary clusters.

This variety is represented in MH by only one type sheet (Syntype) collected from Chemungi by T. F. Bourdillon on 4th April 1895. Another collection of Bourdillon is present in CAL. The present collection has been made from the type locality after a laps of over eight decades. The plant is not common in the evergreen forests of Chemungi and can be easily distinguished from the typical *A. campanulata* Hook. f. by the leaves being narrower (only up to 1.5 cm broad) and glaucous beneath.

*Specimens examined*: Chemungi, 4-4-1895, *T. F. Bourdillon* 543 (Syntype); Chemungi, April 1895, *T F. Bourdillon* 569. (CAL); Chemungi, 8-3-1979, *M. Mohanan* 61723; Chemungi, 19-5-1979, *M. Mohanan* 61835.

*Distribution*: Endemic to Kerala.

**Ampelocissus arnottiana** Planch. in DC. Moncg. Phaner. 5: 379. 1887; Gamble, Fl. Pres. Madras 1: 165. 1957 (repr. ed.). *Vitis indica* sensu Wight & Arn. Prodr. 1: 131. 1834 (non Linn. 1753); Lawson in Hook. f. Fl. Brit. India 1: 653. 1875. [Vitaceae]

Climbing shrubs with tendrils; stems hollow, cylindric, woolly tomentose. Leaves 13-20 × 8-16 cm, cordate-ovate, dentate, brown tomentose on both the surfaces when young, upper surface becoming glabrous later. Flowers sessile, brownish, on dense pedunculate racemes.

A very rare endemic climber of South India found in low elevations and has been earlier reported from Karnataka and Tamil Nadu. This species is represented in MH by only very old collections. The present discovery is made after a lapse of sixty five years and the plant appears to be fast disappearing from South India.

*Specimens examined*: KARNATAKA: Coorg: near Beerajkett, Manglore, *s.l.* Acc. No. 10924. KERALA: Malabar, S. E. Wynad, *s. l.* Acc. No. 10918; Malabar and Concan, *Hooker & Lawson* 20; Calicut Dt.: Banks of Kalai river, 1885, *s. l.* Acc. No. 1095; Between Cochin & Trichur, on the backwaters, 1884, *s. l.* Acc. No. 10919; Travancore, 19-12-1893, *s. l.* 264 (Acc. No. 10914). Trivandrum Dt.: Pulimath, 3-12-1977, *M. Mohanan* 52730. TAMIL NADU: Nilgiri Dt.: Nadungani, 1885, *M. A. Lawson* Acc. No. 10917; Nadungani, 24-9-1914, *s. l.* Acc. No. 11010.

*Distribution*: Endemic to Western and Southern India.

**Memecylon deccanense** C. B. Clarke in Hook. f. Fl. Brit. India 2: 560. 1879; Gamble, Fl. Pres. Madras 1: 336. 1957 (repr. ed.). *M. heyneanum* sensu Wight & Arn. Prodr. 1: 319. 1834. (non Benth. 1831). *M. wightianum* Triana in Trans. Linn. Soc. 28: 158. 1871, non *M. wightii* Thw. 1859. [Melastomataceae]

Woody shrubs, up to 3 m high; branches terete. Leaves 8-16 × 2-4 cm, subsessile or shortly petioled (0.3 cm long), opaque, acute at apex, rounded or cordate at base; secondary nerves not visible. Flowers blue, short pedicelled (0.3 cm) long, fascicled in lateral or axillary tubercles.

This species, "apparently scarce" as stated by Gamble (1957) was represented in MH only by a single sheet collected by T. F. Bourdillon at Nedumangad in 1887. The present collection was made after a lapse of over eight decades at Anchunazhigathode, on the way to Agastyarkudam where it is very rare.

This plant is closely allied to *M. heyneanum* Benth., but can be easily distinguished by its smaller cordate leaves and the calyx lobes being papillose without.

*Specimens examined*: Anchunazhigathode, on the way to Agastyarkudam from Kottur, 5-3-1980, *M. Mohanan* 66078; Near Nedumangad, Jan. 1887, *T. F. Bourdilon* 6.

*Distribution*: Endemic to Kerala.

**Memecylon gracile** Bedd. Icon. t. 164. 1868-1874; Gamble, Fl. Pres. Madras 1: 356. 1957 (repr. ed.).

Shrubs, up to 2 m high; branches angled. Leaves 3-4.5 × 1.4-2 cm, ovate-lanceolate, acuminate at apex, rounded at base. Flowers pale blue in axillary, solitary, drooping peduncles.

Excepting a single report from Visakhapatnam, this species is almost confined to southern part of the western ghats. It is a very rare shrub in the undergrowth of evergreen forests at Suryakanthi, Boneccord. Since the wood is valuable for making walking sticks, the plants are gradually disappearing from this area and elsewhere.

*Specimens examined*: ANDHRA PRADESH: Visakhapatnam Dt.: S. E. of Gudium, Camp hill slope, 24-2-1947, *V. Narayanaswamy & Party* 603 (CAL). KERALA: Travancore, *s. l.* Acc. No. 21613 (Syntype); Quilon Dt.: Colatoorpolay, 28-11-1893, *T. F. Bourdillon* Acc. No. 21615; Colatoorpolay, 28-12-1893, *M. A. Lawson* 49 (CAL); Trivandrum Dt.: Boneccord, 2-10-1973, *J. Joseph*, 44497; Suryakanthi, 21-5-1979, *M. Mohanan* 61885. TAMIL NADU: Kanyakumari Dt.: Kilaviarumalai, Balamore, 20-8-1976, *A. N. Henry* 48109.

*Distribution*: Endemic to Andhra Pradesh, Tamil Nadu & Kerala (India).

**Premna glaberrima** Wight, Icon. t. 1484. 1849; Gamble, Fl. Pres. Madras 2: 767. 1957 (repr. ed.) [Verbenaceae]

Climbing shrubs. Leaves up to 13-14.5 × 3-7 cm, oblong, glabrous, acuminate at apex, obtuse to cuneate at base. Flowers greenish in pubescent corymbs. Drupes globose.

A very rare plant mentioned as endangered by Henry *et al.* (1979). The present collection was made at Kottur R. F.

*Specimens examined*: KERALA: Trichur Dt.: Parambikulam to Vazhachal, 19-4-1977, *K. Ramamurthy* 49387; Palghat Dt.: Mukkali, 2-4-1966, *E. Vajravelu* 27771; Trivandrum Dt.: Kottur, R. F. 16-3-1978, *M. Mohanan* 54664.

*Distribution*: Endemic to Tamil Nadu and Kerala (India).

**Vernonia bourdillonii** Gamble in Kew Bull. 1920: 339. 1920 & in Fl. Pres. Madras 2: 475. 1957 (repr. ed.). [Asteraceae]

Erect shrubs, up to 1.5 m high. Leaves 2-5 × 0.5-1 cm, clustered at the ends of branches, thickly tomentose beneath, oblanceolate, obtuse at apex, cuneate at base. Flowers purple in terminal heads.

This plant is represented in MH only by two very old collections of Bourdillon one each from Tirunelveli Dt. in Tamil Nadu, and Trivandrum Dt., Kerala. The type material (syntype) of this species has been recently traced at University College Herbarium, Trivandrum (UCT). After a lapse of over four decades this plant was relocated on the way to Chemungi where it was found in a restricted locality only.

*Specimens examined*: KERALA: Trivandrum Dt.: Trivandrum, Sept. 1884, *T. F. Bourdillon* 24; way to Chemungi, 9-4-1893, *T F. Bourdillon* 972 (CAL); Chemungi, 11-4-1898, *T. F. Bourdillon* 1379 (syntype, UCT); Near Pathankal, way to Chemungi, 8-3-1979, *M. Mohanan* 59494, 61867. TAMIL NADU: Tirunelveli Dt.: Travancore boundary, 4-3-1917, *s. l.* 14511; way to Naterikal, 22-9-1916, *s. l.* 13376.

*Distribution*: Endemic to Tamil Nadu and Kerala (India).

**Vernonia ramasamii** Hutch. in Kew Bull. 1916: 35. 1916; Gamble, Fl. Pres. Madras 2: 475. 1957 (repr. ed.).

Erect shrubs, up to 0.5 m high. Leaves 4-6 x 0.5 - 1 cm, oblanceolate, slightly tomentose beneath when young, turning glabrous on maturity, faintly serrate, acute or subacute at apex, cuneate at base. Heads terminal, solitary or in pairs.

This species is closely allied to *V. bourdillonii* Gamble but can be easily distinguished by its narrower and nearly glabrous leaves. This fast disappearing plant should be declared as endangered.

*Specimens examined*: KERALA: Trivandrum Dt.: 8-2-1914, *Rama Rao* 2363 (UCT); Poonkulam, foot of Agastyarkudam, 4-3-1980, *M. Mohanan* 66024. TAMIL NADU: Tirunelveli Dt.: Sengaltheri, 18-9-1914, *s. l.* 10861; Agastyamalai, 22-5-1905, *C. A. Barber* 2885 (Isotypes, MH & CAL); Naterikal on the bank of streams, Feb. 1913, *M. S. Ramaswami* 38581 (Syntype, CAL); Kodayar Site, 2-9-1963, *A. N. Henry* 17434; way to Agastyamalai, 30-6-1964, *A. N. Henry & Chandrabose* 19171.

*Distribution*: Endemic to Tamil Nadu and Kerala (India).

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